



- 1 -

SEQUENCE LISTING

<110> Agriculture Victoria Services Pty Ltd AND Pig Research and Development Corporation AND Pfizer Products Inc.

<120> Novel lawsonia spp. gene and uses therefor V

<130> p:\oper\mro\lawson-5.pct

<140>

<141>

<150> US 60/133,989

<151> 1999-05-12

<160> 5

<170> PatentIn Ver. 2.0

<210> 1

<211> 180

<212> PRT

<213> Lawsonia intracellularis

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Met Lys Ile Lys Leu Phe Phe Val Thr Ser Ile Val Thr Ile Ser Leu
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Leu Thr Ser Ile Thr Ser Val Val Leu Ala Cys Ser Val Thr Ser Glu
20 25 30

Val His Met Ile Asp Asp Asn Gly Ile Lys Gln Ser Ile Gly Thr Val
35 40 45

Thr Phe Thr Asp Thr Asp Lys Gly Leu Gln Ile Lys Thr Asp Leu Lys
50 55 60

Gly Leu Pro Ala Gly Glu His Gly Phe His Ile His Glu Gly Gly Ser
65 70 75 80

Cys Gly Pro Ala Glu His Asp Gly His Leu Thr Ala Gly Leu Gln Ala
85 90 95

His Gly His Tyr Asp Pro Asp Lys Thr Gly Lys His Glu Gly Pro Leu
100 105 110

Gly Asn Gly His Lys Gly Asp Leu Pro Arg Leu Val Val Lys Ala Asp
115 120 125

Gly Ile Ala Lys Glu Thr Leu Leu Ala Pro Arg Leu Thr Val Lys Glu
130 135 140

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Ile Lys Gly Arg Thr Val Met Ile His Ala Gly Gly Asp Asn Tyr Ser
 145 150 155 160

Asp Lys Pro Leu Pro Leu Gly Gly Gly Gly Ala Arg Ile Ala Cys Gly
 165 170 175

Val Ile Pro Asn
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<212> DNA

<213> Lawsonia intracellularis

<220>

<221> CDS

<222> (1)..(540)

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tta act agt att act agt gta gta tta gca tgt tct gtt act tca gaa 96
 Leu Thr Ser Ile Thr Ser Val Val Leu Ala Cys Ser Val Thr Ser Glu
 20 25 30

gtc cat atg att gat gac aat gga ata aaa cag agt ata ggc aca gta 144
 Val His Met Ile Asp Asp Asn Gly Ile Lys Gln Ser Ile Gly Thr Val
 35 40 45

act ttt act gat aca gat aaa ggt cta caa ata aaa act gat ctt aaa 192
 Thr Phe Thr Asp Thr Asp Lys Gly Leu Gln Ile Lys Thr Asp Leu Lys
 50 55 60

ggc ctt cct gca gga gaa cat ggt ttt cat atc cat gaa gga gga tca 240
 Gly Leu Pro Ala Gly Glu His Gly Phe His Ile His Glu Gly Gly Ser
 65 70 75 80

tgt gga cct gct gag cat gat gga cat cta aca gct gga ctc caa gct 288
 Cys Gly Pro Ala Glu His Asp Gly His Leu Thr Ala Gly Leu Gln Ala
 85 90 95

cat ggt cat tat gat cct gac aaa aca gga aaa cat gaa gga cct ctt 336
 His Gly His Tyr Asp Pro Asp Lys Thr Gly Lys His Glu Gly Pro Leu
 100 105 110

- 3 -

ggt aat gga cac aag gga gac tta cct aga ctt gta gtt aaa gct gat 384
 Gly Asn Gly His Lys Gly Asp Leu Pro Arg Leu Val Val Lys Ala Asp
 115 120 125

gga ata gca aaa gaa aca ctc tta gct cca aga tta aca gtt aaa gaa 432
 Gly Ile Ala Lys Glu Thr Leu Leu Ala Pro Arg Leu Thr Val Lys Glu
 130 135 140

att aag ggt cgt aca gtt atg atc cat gct ggt ggt gat aac tat tca 480
 Ile Lys Gly Arg Thr Val Met Ile His Ala Gly Gly Asp Asn Tyr Ser
 145 150 155 160

gat aaa cct ctt cct ctt ggc ggt ggt ggt gct cgt ata gct tgt ggt 528
 Asp Lys Pro Leu Pro Leu Gly Gly Gly Gly Ala Arg Ile Ala Cys Gly
 165 170 175

ggt ata cca aac tag 543
 Val Ile Pro Asn
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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence:protective
 peptide

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